

**POWER GRID COMPANY OF BANGLADESH LTD**

**Project Name: Construction of 230kV Transmission Line and Substation at Araihaaz JEZ Area (Package 2)**

**[OCB No.: PGCB/JICA/ BD-P86/BD-P108/IDJEZA/230kV/SS-TL]**

**IFB No. 27.21.0000.101.07.421.23.3932; August 16, 2023**

**CLARIFICATION-02**

**Issued on 26.10.2023**

All comments, queries and requests for clarification, regarding the Tender documents, received from prospective Bidders, and relevant replies and clarifications prepared by PGCB, and associated addendums (if any), are part of Tender documents.

| Sl. No. | Volume/Section/Pages/Clause | Description and Queries of Prospective Bidders                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Reply of PGCB                                               |
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| 1       | General                     | <p><b>Description:</b><br/>As per discussion during site visit we came to know from JEZ that Bidder needs to develop a 1.3km access road for carrying construction &amp; other materials to the substation location.</p> <p><b>Bidder's Queries:</b><br/>a) What should be the width and height of that road from the existing ground level?<br/>b) Is any slope protection needed for that road?<br/>c) Which type of road should the bidder construct (Bituminous, Herring Bone, Sand-Khoa compacted or only sand-filled)?<br/>d) As there is no line item in the price schedule for this road, where should the bidder consider this additional cost?<br/>Please confirm.</p> | Please follow the reply of the clarification-01 Sl. No. 43. |

 

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| 2 | Volume 2 - SECTION-14 Fibre-Optic Multiplexer Equipment for Communication and Protection - Clause 14.1 | <p><b>Description:</b><br/>The Manufacturer of Telecommunication system – Fibre optic multiplexer equipment for communication and protection shall be Hitachi Energy (former ABB), GE (former Alstom/Areva), HUAWEI (China). Only Manufacturer Authorization Letter is required to be submitted with the bid. Since, above mentioned manufacturers are approved, all other requirements mentioned in Tender documents.</p> <p><b>Bidder's Queries:</b><br/>As per our understanding for Telecommunication system – Fibre optic multiplexer equipment, only Manufacturer Authorization Letter, valid ISO Certificate and GTP are required to be submitted with the bid for the above mentioned manufacturers. No Need to consider of any credentials as per Volume-1, Section III, Clause 2.5, Item No. 8. Please confirm bidder's understanding is correct.</p> | Your understanding is correct. |
| 3 | Volume 2 - Protection, Metering & Control and Substation Automation System - Clause 5.2.1              | <p><b>Description:</b><br/>For standardization of operating performance, facilities and spare requirements, the protection relays and control systems, together with complete panels to be supplied under this project shall be manufactured by ABB (Switzerland/Sweden), Alstom/GE (France / UK/USA), Siemens (Germany), or SEL (USA).</p> <p><b>Bidder's Queries:</b><br/>As the above mentioned manufacturers are short listed, therefore as per our understanding for Protection, Metering &amp; Control and Substation Automation System, only Manufacturer Authorization Letter, valid ISO Certificate and GTP are required to be submitted with the bid. No Need to consider of any credentials as per Volume-1, Section III, Clause 2.5, Item No. 7. Please confirm bidder's understanding is correct.</p>                                              | Your understanding is correct. |




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| 4 | Volume 2 - Protection, Metering & Control and Substation Automation System - Clause 5.19.2 | <p><b>Description:</b><br/>For the purpose of standardization, the DFDR to be supplied under this project shall be from Qualitrol (Belgium/UK), SIEMENS (Germany), SEL (USA).</p> <p><b>Bidder's Queries:</b><br/>As the above mentioned manufacturers are shortlisted, therefore as per our understanding for DFDR, only Manufacturer Authorization Letter, valid ISO Certificate and GTP are required to be submitted with the bid. No Need to consider of any credentials as per Volume-1, Section III, Clause 2.5, Item No. 9. Please confirm bidder's understanding is correct.</p>                                                                                                                                                      | Your understanding is correct.                                            |
| 5 | GTP & Requirement Form : 230kV GIS Switchgear                                              | <p>GTP &amp; Requirement Form : 230kV GIS Switchgear<br/>1. GIS Switchgear 230kV – General &amp; Electrical<br/>6.26 Rated electrical endurance : E2 Class</p> <p><b>Clarification to PGCB :</b><br/>According to sub clause 3.4.113 of IEC 62271-100, electrical endurance E2 class is restricted to distribution circuit-breaker shoving a rated voltage above 1kV, and up to and including 52kV. Therefore, our offered 245kV GIS is not applicable and we didn't perform the E2 type test. Also, The GIS manufacturer recommends inspection CB every 20 years for reasons of stability.</p> <p>We understand that it is 245kV GIS so it is not needed to have E2 type test of 245kV GIS. Please confirm our understanding is correct.</p> | Rated electrical endurance of 230kV GIS Switchgear shall be min. E1 Class |
| 6 | GTP & Requirement Form : 230kV GIS Switchgear                                              | <p>GTP &amp; Requirement Form : 230kV GIS Switchgear<br/>1. GIS Switchgear 230kV – General &amp; Electrical<br/>1.4 Enclosure<br/>- Bus bar : Three Phase<br/>- Bay : Single Phase</p> <p><b>Clarification to PGCB :</b><br/>Due to efficiency of maintenance for 245kV GIS, we would like to apply Single Phase for Bus bar instead of Three Phase. Please confirm.</p>                                                                                                                                                                                                                                                                                                                                                                      | Please follow the bidding document.                                       |

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| 7 | <p>Volume 02 of 03 (Substation Part) / 5. Protection, Metering &amp; Control and Substation Automation System / 5.22 Substation Automation System / Clause No. 5.22.25.20</p> | <p>Description:<br/>Tender Document:<br/>For 230kV system, Main 1 protection, Main 2 protection &amp; BCU shall be provided separately. For 33kV system, protection &amp; BCU shall be provided separately.</p> <p>Addendum No. 01 - Item No. 3C1 is revised as follows:<br/>Control, Monitoring, Protection &amp; Substation Automation System including event recording function for 33kV station. For 33kV GIS bays Protection relays and BCU shall be installed on the respective Local Control Panel of GIS of item no. 3B1. Protection relays and BCU shall be manufactured by ABB (Switzerland/Sweden), Alstom/GE(France/UK/USA), Siemens (Germany), or SEL (USA). Moreover, two 33kV incomer feeders and four 33kV outgoing feeders shall have control from 33kV station, 230kV station and NLDC.</p> <p>Clarification No 01 - Item No. 42<br/>For 33kV GIS bays Protection relays and BCU shall be installed on the respective Local Control Panel of GIS. Moreover, protection relays and BCU shall be manufactured by ABB (Switzerland/Sweden), Alstom/GE (France /UK/USA), Siemens (Germany), or SEL(USA)</p> <p>Bidder's Query:<br/>Regarding Separate protection relay &amp; BCU for 33KV Incomer feeder, outgoing feeder , aux transformer feeder, bus coupler feeder &amp; Bus sectionalizer feeder :<br/>Since PGCB requirement is that protection will be in LV compartment of GIS LV compartment ; in this regard we would like to state that there is limited space in GIS LV compartment. Accommodating separate protection relay , BCU, various auxiliary relay will consume significant space in LV compartment which makes troubleshooting difficult. As per standard practice of various utilities in Bangladesh for 33KV feeders single BCPU is provided where protection is built in feature of bay control unit. In this regard we request to accept single BCPU relay for each individual 33KV feeder. Please confirm.</p> | <p>For 33kV system, protection &amp; BCU functions may be provided in the same IED, i.e., BCPU may be provided.</p> |
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| 8 | <p>Volume 03 of 03 / Schedule A / Section III / The 230/33kV Substation (part 2/2) - 33kV Station and Price Schedule/Schedule B1/ Section III/ The 230/33kV Substation (part 2/2) - 33kV Station / Lite Item No. 3B - 7</p> | <p>Description:<br/>Partial Discharge monitoring internal sensor.</p> <p>Bidder's Query:<br/>Partial Discharge monitoring internal sensor for 33KV GIS:<br/>We understand that Partial Discharge monitoring internal sensor is required for 132KV and above voltage level. Moreover, This requirement is not standard for 33kV GIS, Hence, we request to remove requirement of Partial Discharge monitoring internal sensor for 33KV GIS and delete line item no. 3B-7 of the price schedule. Please confirm.</p> | <p>Partial Discharge monitoring internal sensor is required for 132KV and above voltage level GIS. Partial Discharge monitoring internal sensor for 33KV GIS is not required. However, sufficient number of suitable partial discharge monitoring external sensors shall be provided for 33kV GIS.</p> <p>Portable Partial Discharge (PD) monitoring system for GIS to be provided (Price Schedule-Substation Part (II), Price Schedule JEZ Substation: Schedule B1; Section IV: Mandatory Spare Parts for 230/33kV Substation, Item No. 4A9 (iii)) shall be compatible with the Partial Discharge monitoring internal sensors of 230KV GIS and partial discharge monitoring external sensors of 33kV GIS.</p> |
| 9 | <p>Section II / Bid Data Sheet / Clause ITB 19.1</p>                                                                                                                                                                        | <p>Description:<br/>The amount and currency of the Bid Security shall be three hundred thousand (3,00,000) US Dollar.</p> <p>Bidder's Query:</p>                                                                                                                                                                                                                                                                                                                                                                  | <p>Addendum-02 is issued please follow.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

*Amend*

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|  |  | <p>We have seen in previous tenders of PGCB that the requirement of Bid Security's Currency has been mentioned as US Dollars or an equivalent amount in freely convertible currency. i.e. OCB No.: PGCB/ADB/3683/STGEP/CHARFASSON/SS; IOCT No.: PGCB/AIIB/000308-BGD/SS/Package-1; ICB No.: PGCB/CEEGSTL/SS/Package-2/Lot-2</p> <p>But in this tender the currency of Bid Security is mentioned as US Dollars only. As per our understanding Bidder can issue Bid Security in US Dollars or an equivalent amount in freely convertible currency.</p> <p>Please Confirm our understanding is correct.</p> |  |
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